Appln. No. 09/976,299   Attorney Docket No. 11721-034

I. Listing of Claims

1. through 7. (Cancelled)

8.   (Currently amended): A method of managing the enablement and disablement of occupant restraints in a motor vehicle, said method comprising:

(a) determining if a seat belt of a seat is buckled or unbuckled; ~~and~~

(b) determining if a weight in the seat is less than a threshold weight or is equal to or greater than the threshold weight;

~~(b)~~ (c) in response to the determination of steps (a) and (b), enabling at least one occupant restraint of the group that consists of an automatic locking restraint, a pre-tensioner and an air bag, ~~the enabled occupant restraints being activated in a sequence in which the automatic locking restraint is activated before the pre-tensioner and the air bag and the pre-tensioner is activated before the air bag;~~

(d) if the seat belt is buckled and the weight in the seat is less than threshold weight, disabling the air bag and activating the automatic locking restraint upon sensing a high g event, and activating the pre-tensioner after activating the automatic locking restraint;

(e) if the seat belt is unbuckled and the weight in the seat is less than the threshold weight, disabling the air bag and the pre-tensioner;

(f) if the seat belt is unbuckled and the weight in the seat is equal to or greater than the threshold weight, disabling the pre-tensioner and activating the air bag upon sensing a high g event; and

(g) if the seat belt is buckled and the weight in the seat is equal to or greater than the threshold weight, activating the automatic locking restraint upon sensing a high g event, activating the pre-tensioner after activating the automatic locking restraint, and activating the air bag after activating the pre-tensioner.

9. through 13. (Cancelled)

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14.   (Currently amended): The method of claim 8 ~~13~~, further comprising:

(h) if step (a) determines that the seat belt is buckled and step (b) ~~(e)~~ determines that said weight in said seat is equal to or greater than said threshold, determining if the seat belt is extended and, if not, performing step (g); and

(i) if step (h) determines that the seat belt is extended, disabling said air bag and enabling said automatic locking restraint and said pre-tensioner .

15.   (Currently amended): The method of claim 8 ~~9~~, further comprising:

(j) if step (a) determines that the seat belt is buckled and step (b) ~~(e)~~ determines that said weight in said seat is less than said threshold, enabling said air bag to inflate with a procedure that provides a soft inflation impact on said occupant.

16.   (Cancelled)

17.   (Currently amended): The method of claim 15 ~~16~~, further comprising signaling an alert if step (j) is performed.

18.   (Currently amended): The method of claim 8, further comprising:

(k) determining a weight in said seat as measured by a weight sensor system;

(l) if said weight is greater than a threshold weight, determining if said seat belt is tightened;

(m) if step (l) determines that said seat belt is tightened, determining an adjusted weight; and

wherein step (c) ~~(b)~~ enables said at least one occupant restraint dependent on a comparison of said adjusted weight and said threshold weight.

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19.   (Cancelled)

20.   (Cancelled)

21.   (Original): The method of claim 18, wherein step (l) determines seat belt tightening by comparing values measured by said sensor system at about the rear right and rear left of said seat.

22.   (Original): The method of claim 21, wherein step (m) derives said adjusted weight from said values.

23.   (Original): The method of claim 22, wherein step (m) determines said adjusted weight only if the difference between said values is greater than a predetermined amount.

24.   (Original): The method of claim 18, wherein steps (l) and (m) are repeated until a predetermined time has expired from the time the seat has been buckled.

25.   (Currently amended): The method of claim 18 ~~13~~, further comprising:
      ~~(p)~~ (n) if step (a) determines that the seat belt is buckled and step (b) ~~(c)~~ determines that said weight in said seat is equal to or greater than said threshold, determining if the seat belt is extended and, if not, performing step (d); and
      ~~(q)~~ (o) if step (n) ~~(p)~~ determines that the seat belt is extended, enabling a manual locking restraint.

26.   (Currently amended): The method of claim 25, further comprising:
      ~~(r)~~ (p) enabling said air bag with an inflation procedure that provides a soft inflation impact on said occupant.

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27. through 29. (Cancelled)

30.   (Currently amended): A system for managing the enablement and disablement of occupant restraints on an occupant in a seat having a seat belt in a motor vehicle, said system comprising:

a plurality of occupant restraints selected from the group consisting of an automatic locking restraint, a pre-tensioner and an air bag device;

a processor, a memory and a bus that interconnects said processor, said memory and said plurality of occupant restraints;

a load management procedure stored in said memory that controls said processor to perform the following steps:

(a) determining if said seat belt is buckled or unbuckled; and

(b) determining if a weight in the seat is less than a threshold weight or is equal to or greater than the threshold weight;

(b) (c) in response to the determination of steps (a) and (b), enabling at least one said occupant restraints, the enabled occupant restraints being activated in a sequence in which the automatic locking restraint is activated before the pre-tensioner and the air bag and the pre-tensioner is activated before the air bag;

(d) if the seat belt is buckled and the weight in the seat is less than threshold weight, disabling the air bag and activating the automatic locking restraint upon sensing a high g event, and activating the pre-tensioner after activating the automatic locking restraint;

(e) if the seat belt is unbuckled and the weight in the seat is less than the threshold weight, disabling the air bag and the pre-tensioner;

(f) if the seat belt is unbuckled and the weight in the seat is equal to or greater than the threshold weight, disabling the pre-tensioner and activating the air bag upon sensing a high g event; and

(g) if the seat belt is buckled and the weight in the seat is equal to or greater than the threshold weight, activating the automatic locking restraint upon sensing a high g event, activating the pre-tensioner after activating the automatic locking restraint, and activating the air bag after activating the pre-tensioner.

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31. through 35. (Cancelled)

36.   (Currently amended):   The system of claim 30 ~~35~~, said load management procedure further comprising:

(h) if step (a) determines that the seat belt is buckled and step (b) ~~(c)~~ determines that said weight in said seat is equal to or greater than said threshold, determining if the seat belt is extended and, if not, performing step (g); and

(i) if step (h) determines that the seat belt is extended, disabling said air bag and enabling said automatic locking restraint and said pre-tensioner.

37.   (Currently amended):   The system of claim 30 ~~34~~, said load management procedure further comprising:

(j) if step (a) determines that the seat belt is buckled and step (b) ~~(c)~~ determines that said weight in said seat is less than said threshold, enabling said air bag to inflate with a procedure that provides a soft inflation impact on said occupant.

38.   (Cancelled)

39.   (Currently amended):   The system of claim 37 ~~38~~, said load management procedure further comprising signaling an alert if step (j) s performed.

40.   (Currently amended): The system of claim 30, said load management procedure further comprising:

(k) determining a weight in said seat as measured by a weight sensor system;

(l) if said weight is greater than a threshold weight, determining if said seat belt is tightened;

(m) if step (l) determines that said seat belt is tightened, determining an adjusted weight; and

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wherein step (c) (b) enables said at least one occupant restraint
dependent on a comparison of said adjusted weight and said threshold
weight.

41.   (Cancelled)

42.   (Cancelled)

43.   (Original): The system of claim 40, wherein step (l) determines seat
belt tightening by comparing values measured by said sensor system a: about
the rear right and rear left of said seat.

44.   (Original): The system of claim 43, wherein step (m) derives said
adjusted weight from said values.

45.   (Original): The system of claim 44, wherein step (m) determines said
adjusted weight only if the difference between said values is greater than a
predetermined amount.

46.   (Original): The system of claim 40, wherein steps (l) and (m) are
repeated until a predetermined time has expired from the time the seat has been
buckled.

47.   (Currently amended): The system of claim 30 25, said load
management procedure further comprising:
        (p) (n) if step (a) determines that the seat belt is buckled and step (b) (c)
determines that said weight in said seat is equal to or greater than said
threshold, determining if the seat belt is extended and, if not, performing
step (g); and
        (q) (o) if step (n) (p) determines that the seat belt is extended, enabling a
manual locking restraint.

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48.   (Currently amended): The system of claim 47, said load management procedure further comprising:

(r) (o) enabling said air bag with an inflation procedure that provides a soft inflation impact on said occupant.

49. through 61. (Cancelled)